



CIVIL-TECH CONSULTANTS AND ENGINEERS

Building & Highway Material Testing Laboratory

An ISO 9001:2008 Certified Company

NABL - Accredited Laboratory as per ISO / IEC-17025 : 2005



Job No.: CTCE/BBMP/KRIDL/W.No.13/GSB-II/AL/2017-18

Date 20.03.2018

TEST REPORT ON ATTERBERG LIMITS TEST FOR GRANULAR SUB BASE

* Customer	: Asst. Executive Engineer, Shettyhalli Sub Division, BBMP, Bangalore.
* Agency	: Technical Manager (West), KRIDL, Bangalore.
* Name of work	: Improvements of asphaltting at Ashwathkatte surrounding area in Mallasandra Ward No.13, Shettyhalli Sub Division, BBMP, Bangalore.
* Reference	: BBMP/EE/DD/WO/220/2017-18 Dated: 07.02.2018
* Sample ID	: GSB (Clorse Graded-II)
Technical Reference	: IS : 2720 (Part - 5) 1985 (RA-2010), MORTH Table : 400-1
Date of Testing	: 20.03.2018



Tests on filler screen materials (As per Table : 400-13)

Sl. No.	Particulars	Test Results	Standards as per Specifications
1	Liquid Limit, %	22.00	25.0% Maximum.
2	Plasticity Index, %	Non Plastic	6.0% Maximum.

* Information is furnished by the Customer/Representative

Remarks: Satisfies MORTH Specifications as per Table 400-1, Grading II

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ನಹಾಯಕ ಕಾರ್ಯಪಾಲಕ ಅಭಿಯಂತರರು
ಶಿಕ್ಷಣ, ಉಪವಿಭಾಗ, ಬಾಸವೇಶ್ವರನಗರ ಪಾಲಿಕೆ
ಬೃಹತ್ ಬೆಂಗಳೂರು ಮಹಾನಗರ ಪಾಲಿಕೆ
ಎಸ್.ಎಂ. ರಸ್ತೆ, ರವೀಂದ್ರನಗರ, ಬೆಂಗಳೂರು



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Job No.: CTCE/BBMP/KRIDL/W.No.13/WMM/Gradation/2017-18

23.03.2018

TEST REPORT ON GRADATION OF WET MIX MACADAM

* Customer : Asst. Executive Engineer, Shettyhalli Sub Division, BBMP, Bangalore.
 * Agency : Technical Manager (West), KRIDL, Bangalore.
 * Name of Work : Improvements of asphaltting at Ashwathkotte surrounding area in Mallasandra Ward No.13, Shettyhalli Sub Division, BBMP, Bangalore.
 * Reference : BBMP/EE/DD/WO/220/2017-18 Dated: 07.02.2018
 Sample ID : Wet Mix Macadam
 Technical Reference : IS 2386 (part-1)1963 (RA-2011)
 Date of Testing : 23.03.2018

Oven Dry Wt (gm): 5000

Is Sieve Size in mm	Weight Retained (gm)	Cumulative Weight Retained (gm)	Cumulative % of Retained	Cumulative % of Passing	Spec.Limits As per Morth Table 400-13
53	0	0	0	100	100
45	155	155	3.1	96.9	95-100
22.4	1530	1685	33.70	66.30	60-80
11.2	1095	2780	55.60	44.40	40-60
7.5	680	3460	69.20	30.80	25-40
4.75	450	3910	78.20	21.80	15-30
2.5	490	4400	88.00	12.00	8-22
0.075	475	4875	97.50	2.50	0-8

*Information is furnished by the Customer/Representative.

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Job No.: CTCE/BBMP/KRIDL/W.No.13/WMM/AIV/2017-18

23.03.2018

TEST REPORT ON IMPACT VALUE OF AGGREGATE

* Customer : Asst. Executive Engineer, Shettyhalli Sub Division, BBMP, Bangalore.
 * Agency : Technical Manager (West), KRIDL, Bangalore.
 * Name of Work : Improvements of asphaltting at Ashwathkatte surrounding area in Mallasandra Ward No.13, Shettyhalli Sub Division, BBMP, Bangalore.
 * Reference : BBMP/EE/DD/WO/220/2017-18 Dated: 07.02.2018
 * Sample ID : Wet Mix Macadam
 Technical Reference : IS : 2386(Part -4)-1963 (RA-2011)
 Date of Testing : 23.03.2018

Sl No.	Details	Trial No.		Average
		1	2	
1	Total weight of aggregate sample filling the cylindrical measure = W_1 g	385	388	22.12
2	Weight of aggregate passing 2.36 mm sieve after the test = W_2 g	85	86	
3	Weight of aggregate retained 2.36 mm sieve after the test = W_3 g	300	302	
4	Aggregate Impact value = percent fines $100 * (W_2/W_1)\%$	22.08	22.16	

Information is furnished by the Customer/Representative.

Comments:

Maximum allowable Aggregate Impact value for Wet Mix Macadam is 30%

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(Signature)

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Job No.: CTCE/BBMP/KRIDL/W.No.13/WMM/Shape.T/2017-18

23.03.2018

TEST REPORT ON FLAKINESS INDEX & ELONGATION INDEX OF COARSE AGGREGATES

* Customer	: Asst. Executive Engineer, Shettyhalli Sub Division, BBMP, Bangalore.
* Agency	: Technical Manager (West), KRIDL, Bangalore.
* Name of Work	: Improvements of asphaltting at Ashwathkatte surrounding area in Mallasandra Ward No.13, Shettyhalli Sub Division, BBMP, Bangalore.
* Reference	: BBMP/EE/DD/WO/220/2017-18 Dated: 07.02.2018
* Sample ID	: Wet Mix Macadam
Technical Reference	: IS 2386(Part 1) 1963 (RA 2011)
Date of Testing	: 23.03.2018

Sl.No.	Description	Result
1	Flakiness Index	12.34%
2	Elongation Index	13.80%
3	Combined Flakiness & Elongation Index	26.14%

*Information is furnished by the Customer/Representative.

Comments:

→ Maximum allowable Flakiness & Elongation Index for Wet Mix Macadam is 30%

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ಶಿಬಿರದ ಮೇಲೆ
ಬಿಟ್ಟುಕೊಟ್ಟು
ವಿನ್.ಎಂ. ರಾಜ್. ರವರಿಗೆ
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Job No.: CTCE/BBMP/KRIDL/W.No.13/CSR-03/585g/QB(BM)/2017-18

10.04.2018

TEST REPORT ON DETERMINATION OF BITUMEN CHARACTERISTICS

* Customer	:	Asst. Executive Engineer, Shettyhalli Sub Division, BBMP, Bangalore.
* Agency	:	Technical Manager (West), KRIDL, Bangalore.
* Name of work	:	Improvements of asphaltting at Ashwathkatte surrounding area in Mallasandra Ward No.13, Shettyhalli Sub Division, BBMP, Bangalore.
* Reference	:	BBMP/EE/DD/WO/220/2017-18 Dated: 07.02.2018
* Sample ID	:	Bitumen
Source/ Location	:	Hot Mix Plant, Bangalore.
Sample Received on	:	08.04.2018
Period of Testing	:	08.04.2018 to 10.04.2018

The results of the tests conducted on the bitumen sample are as follows:

Sl. No	Description	Test Method as per IS	Test Result	Requirement as per IS:73:2013
1	Penetration at 25 °C, 1/10 mm	IS :1203 -1978 (RA-2014)	62	60 to 70
2	Softening point, °C	IS :1205 -1978 (RA-2014)	47	Min. 45
3	Ductility at 27°C, cm	IS :1208 -1978 (RA-2014)	100 >	Min. 50
4	Flash Point, °C	IS :1209 -1978 (RA-2014)	302	Min. 220

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